

Planning and Migration to strict mode

Let's make strict choices



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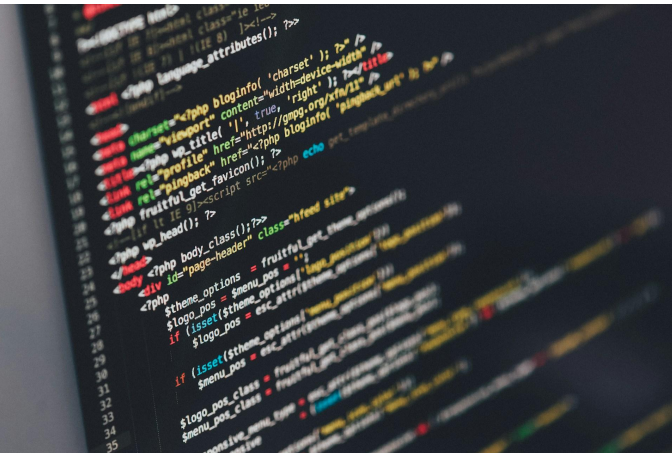


We have a Nx monorepo with 188 projects and growing.





The total codebase is 2M lines of code and growing





Till Aug 2023 we had strict flags disabled for all projects.



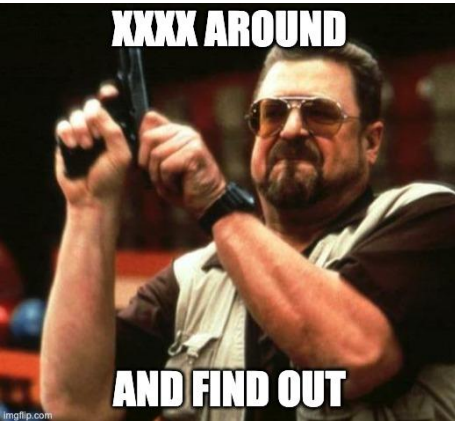


We kept getting bugs which we could have captured if strict mode was enabled.





We wanted to fix this issue, but how?



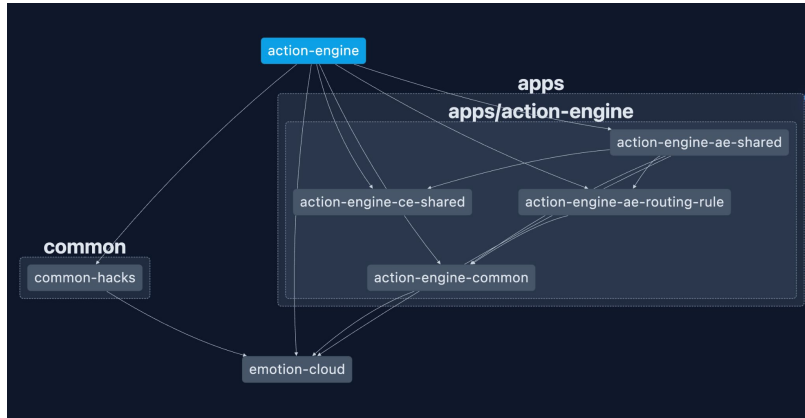


We enabled strict flags for one app and all builds
started failing



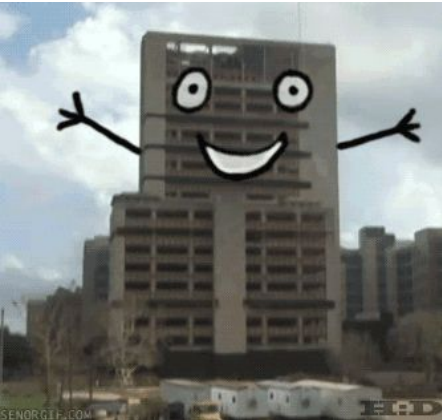


We realized we cannot enable strict mode for apps till we fix libraries. We pulled Nx graph and found libs impacting all apps.





We enabled it for our shared lib and it was taking too much time and many errors to fix, it was breaking our apps too.





It was time to break the task into smaller chunks.

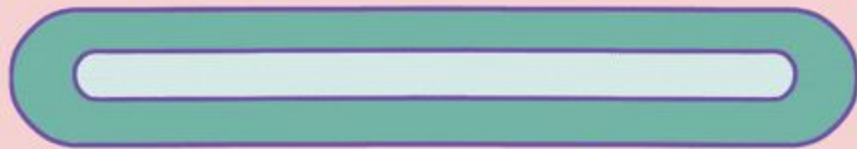


A lightbulb is shown in the process of shattering, with numerous sharp, translucent fragments of glass flying outwards. The interior of the bulb is illuminated with a bright, warm yellow light, creating a strong contrast with the dark background. The base of the bulb, showing its screw threads, remains intact and is visible at the bottom. The overall image conveys a sense of a breakthrough, a final idea, or a solution emerging from a state of fragmentation or uncertainty.

Final solution



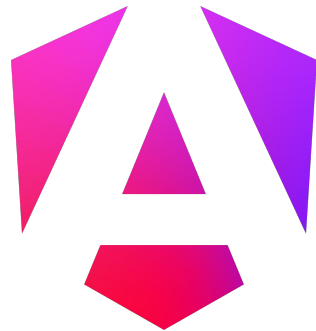
PROGRESS
Not
PERFECTION





After failing multiple times, and learning we had, we decided to split migration in 3 parts.





```
"angularCompilerOptions": {  
  "strictInjectionParameters": true,  
  "strictInputAccessModifiers": true,  
  "strictTemplates": false --> true  
}
```



```
"compilerOptions": {  
  "strict": false, --> true  
  "strictPropertyInitialization": true, --> false  
},  
"angularCompilerOptions": {  
  "strictNullInputTypes": true, --> false  
  "strictTemplates": true  
}
```




```
"compilerOptions": {  
  "strict": true,  
  "strictPropertyInitialization": false, --> true  
},  
"angularCompilerOptions": {  
  "strictNullInputTypes": false, --> true  
  "strictTemplates": true  
}
```



We wanted to share how to do it with everyone, so we created a design doc





Convincing management





Data from observability platform





JS TypeError ...ntic-layer-lib/src/lib/components/object-listing/object-list/object-list.component.html in er

Cannot read properties of undefined (reading 'type')

Last seen about 1 hour ago - 5 months old @ ems-frontend

OPEN

437

308k



of 437

of 308k

NEW JS TypeError ...dget/bp-component-settings/bp-component-settings.component.html in template

Cannot read properties of null (reading 'type')

Last seen about 2 hours ago - 25 days old @ ems-frontend

OPEN

86

49.9k



of 86

of 49.9k

This is 350k errors in 2 weeks on our

Angular Template





ReferenceError ...ofiling-number-chart/profiling-number-chart.component.ts in `e.getHistogramData`

appliedFiltersState is not defined

Last seen 18 minutes ago – 4 months old | [ems-frontend](#)

1.39k

of 1.39k

6.10k

of 6.10k



OPEN

This is 15k errors in 2 weeks due to
strict mode being false

TypeError ...components/component-editor/component-editor.component.ts in `e.getNoLedgerModelData`

e.split is not a function or its return value is not iterable

Last seen 4 days ago – 4 months old | [ems-frontend](#)

6

of 6

7.29k

of 7.29k



OPEN

TypeError ...mponents/detail-install-button/detail-install-button.component.ts in `T.isPartnerRequest`

Cannot read properties of undefined (reading 'isPartnerAsset')

Last seen 13 minutes ago – 10 months old | [ems-frontend](#)

173

of 173

4.98k

of 4.98k



OPEN

- We started migrating our shared libs to strict mode, so we can unblock apps.
- After moving our shared libs to strict mode, we updated our generators to **enable strict mode by default for new libs and apps.**
- Add **tsconfig.editor.json** with strict config to all apps and libs





96 projects on “**strictTemplate**”= true

88 project using “**strict**”=true



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<https://github.com/angular/angular/issues/35293>



<https://www.youtube.com/c/TechTalksWithSantosh>

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Thank you



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